

## TROPICAL AMERICAN PLANTS, XIV

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In working certain of the Rubiaceae for Flora of Guatemala undescribed species have been found, some of these directly involved in the flora and some species found in revising the collections to understand the Guatemalan material.

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*BORRERIA GRACILIS* L. Wms. sp. nov. — Herbae graciles repentes aut suberectae. Caules angulati vel leviter alati glabri; folia elliptico-ovata vel ovata acuta vel obtusa obscure ciliati petioli graciles cetera glabri; inflorescentia cymosa pauciflora sessilis; calyx bilobatus lobi lineares; corolla suburceolata trilobata usque ad 0.6 mm. longa stamina sessilia; capsula suborbicularis leviter complanata; semina fusca.

Small slender stemmed repent or suberect annuals or perhaps perennials. The stems angulate with very narrow wings, glabrous, the internodes 3-5 cm. long; stipules interpetiolar, laciniate-digitate, mostly about 1 mm. long; leaves elliptic-ovate to ovate, acute or obtuse, slender petiolate, obscurely ciliate but otherwise glabrous, the blades mostly 1-2.5 cm. long and 0.4-1 cm. broad, the petiole slender, 2-7 mm. long; inflorescence few-flowered axillary sessile cymes; hypanthium in flower about 0.5 mm. long, diaphanous; calyx bilobate, the lobes linear, about 0.5 mm. long; corolla suburceolate, trilobate, about 0.5-0.6 mm. long, the tube about 0.2 mm. long, the ovate, obtuse lobes about 0.3-0.4 mm. long; stamens 3, sessile in the sinu of the corolla lobes; the capsule suborbicular, 0.8-1 mm. long and nearly as broad, truncate, laterally flattened; seed brown, with obscure longitudinal ridges, not reticulate, about 0.7-0.8 mm. long and 0.4 mm. broad, oblong ovate.

Costa Rica: Wafer Bay, Cocos Islands, June 28, 1932, John Thomas Howell 10178 (type, F); mostly prostrate, in dense shade in leaf mold, along brook flowing into Wafer Bay, Cocos Island, alt. 150 feet, April 18, 1930, Svenson 325.

A delicate repent plant somewhat related to B. ocymoides (Burm.) DC. but easily distinguished by the bilobate calyx [not 4-(5-) lobate], smaller flowers with almost no corolla tube, seeds smaller and lacking the reticulate-pitted surface.

COUSSAREA IMITANS L. Wms. sp. nov. — Arbusculae usque ad 12 m., ramuli glabri tereti. Folia late elliptica vel ovato-elliptica breviter acuminata subsessilia glabra breviter petiolata; inflorescentiae terminales thyrsoido-paniculatae breviter pedunculatae puberulae; calyx subcampanulatus 2-4-dentatus dense puberulus; corolla alba fragrans extus puberula, tubus angustus, lobi lineari-oblongi acuti; antherae lineares; stylus bifidus; fructus subbaccati complanati uniseminalis.

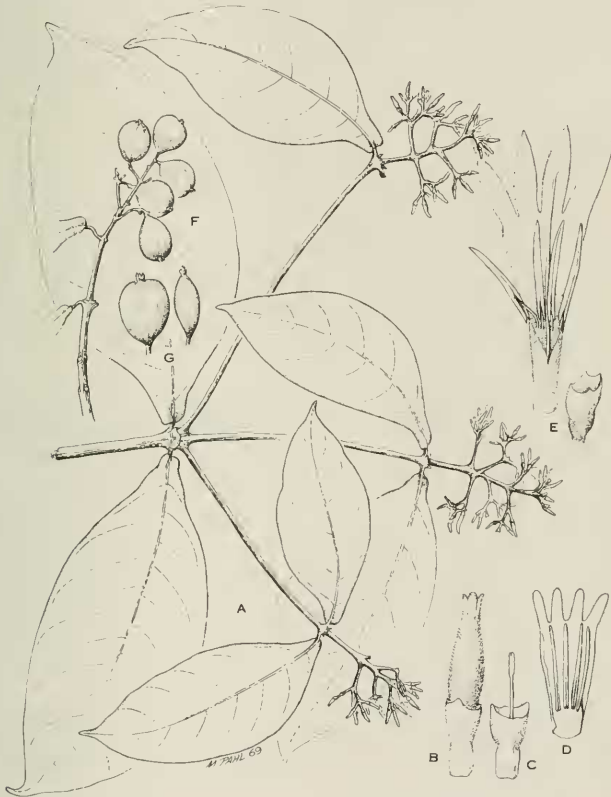
Small trees 8-12 m. tall and to 10 cm. in diameter, the branchlets glabrous, terete or nearly so; leaves broadly elliptic or ovate-elliptic, short acuminate, subsessile, cuneate and abruptly terminated at the base, glabrous, the blades 12-20 cm. long and 3.5-9 cm. broad, acuminate tip about 1 cm. long, lateral veins mostly 8-10 pairs, prominulous, petiole 2-5 mm. long; inflorescences terminal, thyrsoid-paniculate, short pedunculate and surpassed by the subtending leaves, to about 8 cm. long, sparsely to densely puberulent above; flowers 25-28 mm. long when mature; calyx and hypanthium densely pubescent, about 3 mm. long, the calyx subcampanulate, about 1.5 mm. long and 2 mm. broad, bidentate or obscurely 4-dentate; corolla white, fragrant, densely and minutely puberulent outside, 25-28 mm. long, the tube narrow, about 18 mm. long, the lobes linear-oblong, acute, 8-9 mm. long; anthers linear, about 8 mm. long, inserted below, filaments attached near the base of the anthers, about 1 mm. long; style bifid, shorter than or as long as the corolla tube; fruits indehiscent, subbaccate, laterally compressed, obovate, 1.5-2 cm. long and 1.2-1.5 cm. broad, 1-seeded, the calyx persistent.

Guatemala: Livingston, Dept. Izabal, May 4, 1906, Lewton 422 (F, US); tree 30-40 ft. tall, leaves firmly chartaceous, corolla white, along trail beginning from mile 33.23 between Dartmouth and Morales toward Lake Izabal, Montaña del Mico, Dept. Izabal, alt. 30-150 m., April 7, 1940, Steyermark 39013 (type, F); arbusto 4 m. alto, orillando el camino para Cadenas, a km. 169, Depto. Petén, 2 diciembre 1970, Tún Ortíz 1435 (F, EAP, US, LL).

British Honduras: small tree 25 feet, 3 inches diameter

in forest shade, usually swampy places, flowers white, sweetly perfumed, alt. 50 feet, near Muchaca, May 18, 1933, Schipp S-558; flowers white, tree 25 feet tall and 4 inches in diameter, occasional in forest, Jacinto Creek, July 3, 1933, Schipp 1187 (F).

Resembling Coussarea impetiolaris Donn.-Sm., a species commonly collected in Costa Rica but easily distinguished by the puberulent inflorescence and flowers, the complanate fruit nearly twice as large. - The genus is not known between Guatemala and Costa Rica.



Coussarea imitans. A, branch, X 1/2; B, flower in bud, X 4; C, calyx and hypanthium from bud, X 4; D, dissection of corolla from a bud, X 4; E, flower at anthesis, dissected, X 2 1/2; F, fruiting inflorescence, X 1/2; G, fruit from side and edge, X 1. Magnifications approximate. A-D, from the type. E-G, from other specimens.

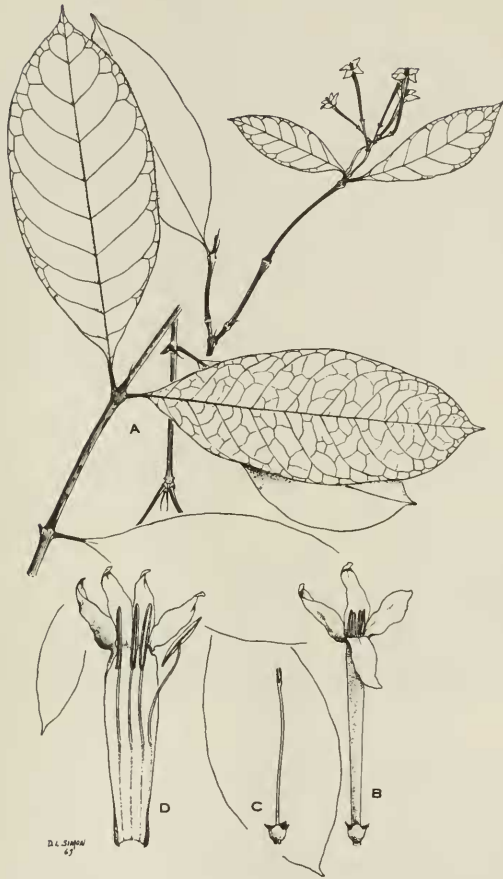
DEPPEA ANISOPHYLLA L. Wms. sp. nov. — Herbae graciles usque ad 1 m. altae; ramuli breviter pilosi glabrescentes. Folia anisophylla elliptica vel lanceolata subtus sparse et breviter pubescentia, petioli breviter pilosi; inflorescentia racemosa pauci-pluri-flora, pedunculi pergraciles puberulenti; calyx usque ad basem divisus, lobi leviter inaequales usque ad 1 mm. longi; corolla rotata usque ad basem fere divisa, lobi lanceolati sparse pilosi; antherae lineari-oblongae; filamenta perbrevia; capsula anguste obovatae valde reticulatae.

Slender shrubs to 1.5 m. tall, the young branches short pilose pubescent, becoming glabrous with age. Leaves prominently anisophyllous, the larger leaf of a pair 2-4 times larger than the opposite leaf, elliptic or lanceolate, acuminate, the blade (larger) 6-10 cm. long, 1.5-3 cm. broad, sparsely short pilose especially along the veins below, the petiole up to about 2 cm. long, sparsely short pilose; inflorescence few-several-flowered secund racemes, mostly about 1.5-3 cm. long, the peduncles extremely slender, puberulent; hypanthium about 1 mm. long, subglabrous; the calyx divided to the base, the lobes somewhat unequal, the longer lobes about 1 mm. long, linear, ciliate or not; corolla rotate, divided almost to the base, about 2.5-3 mm. long, the 4 lobes lanceolate, acute, sparsely pilose dorsally, about 2.2-2.5 mm. long and 1 mm. broad; anthers linear-oblong, obtuse, about 1.5 mm. long, the filaments very short; style about 2.5 mm. long, stigmas globose; capsules narrowly obovate, strongly reticulate, 2.5-3.5 mm. long.

Guatemala: slender shrub 5 feet high, flowers greenish-yellow, in the forest, Finca Moca, alt. 3,200 feet, January 7, 1935, Skutch 2072 (type, F); shrub 4 feet high, flowers pale yellow, in the forest, Finca Moca, alt. 3,500 feet, October 25, 1934, Skutch 1539 (F).

Deppea anisophylla is easily distinguished superficially from the other species of the genus in Guatemala by the sparsely pilose leaves, stems and inflorescences. It is the smallest flowered species of the genus known to me, the relatively short secund inflorescence, the very unequal leaves of each pair are characteristic. Related to D. flava which is anisophyllous also but less prominently so and it has the tertiary veins on the lower surfaces of the leaves lineolate and glabrous.

FARAMEA STANDLEYANA L. Wms. sp. nov. — Arbuscula usque ad 2 m. alta omnis glabra. Ramuli teretes; folia elliptica vel elliptico-oblanceolata abrupte et breviter acuminata ad basem attenuata; inflorescentia terminalis pauciflora; calyx suburceolatum usque ad medium lobatum, lobi triangulares acuti; corolla alba hypocrateriformis tubus gracilis lobi lanceolati acuti; antherae lineares; stylus bifidus; fructus desideratur.



*Faramea standleyana*. A, habit of the plant, X 1/2; B, a flower, X 2; C, hypanthium, calyx and style, X 2; D, a corolla dissected to show stamens, X 2. Illustration from the type specimen.

Shrubs to about 2 m. tall, entirely glabrous. the branchlets terete, the internodes 5-7 cm. long; stipules intrapetiolar, about 5 mm. long with the long aristate tip to 1 cm. long; leaves elliptic or elliptic-oblongate, abruptly and shortly acuminate, attenuate to the base, with 8-10 pairs of lateral nerves, blades 11-15 cm. long and 2-6 cm. broad, petiole 1-1.5 cm. long; inflorescence terminal, a few-flowered raceme, the peduncle slender and about 2 cm. long, the pedicels up to 1 cm. long; calyx suburceolate, about 1 mm. long, lobed to the middle, the lobes triangular, acute; corolla white with the tube pale lilac, salverform, the tube slender, 2-2.5 cm. long, the lobes lanceolate, acute, about 8-9 mm. long; the stamens attached near the middle of the corolla tube, the anthers linear, 9-10 mm. long, the filaments as long as the anthers; style about 15 mm. long, bifid; fruits unknown.

Guatemala: shrub 5 feet tall; corolla white, sweet-scented, the tube pale lilac, rocky slopes along Río Frio, Cerro San Gil, Dept. Izabal, alt. 75 m., Dec. 17, 1941, Steyermark 39962 (type, F).

A quite distinctive species easily separated from the other North American species by the long slender corolla tube, the minute and dentate calyx, the short few-flowered racemose inflorescence.

It is a pleasure to name this plant for Dr. Standley, my colleague for many years and author of most (17 of 25) continental North American Farameas.

PALICOUREA GALEOTTIANA Martens, Bull. Acad. Brux. 11, pt. 1: 136. 1844. Psychotria mexicana Willd. ex R. & S. Syst. Veg. 5: 189. 1819. Palicourea mexicana Benth. ex Oersted, Vid. Medd. Kjoebenhavn 1852: 37. 1853, not based on Psychotria mexicana Willd.

The most abundant of the montane Palicoureas from southern Mexico to Panama and mostly found at elevations above 1,200 meters. The name usually given the species is "Palicourea mexicana (Willd.) Benth." a name which does not exist. Bentham, when he described Palicourea mexicana, described it as a new species not as a transfer of Psychotria mexicana Willd. ex R. & S. to Palicourea. Bentham asked, at the end of the description, "An huc referenda Psychotria mexicana ...." which clearly indicates that he was describing a new species and did not intend to make a new transfer. I believe that Palicourea galeottiana Martens is the oldest valid name for these plants.

PSYCHOTRIA VERVOSA var. RUFESCENS (HBK.) L. Wms. comb. nov. -  
P. rufescens HBK. Gen. & Sp. 3: 364. 1819. P. rufescens H. & B.  
 ex R. & S. Syst. veg. 5: 192. 1819. P. nervosa subsp. rufescens  
 Steyermark. Mem. N. Y. Bot. Gard. 23: 480. 1972.

This variety, sparsely distributed from Guatemala to northern South America at relatively low elevations differs mainly in being pubescent in most parts. Dr. Standley considered the variation to be of little importance, however it is distinguishable and does appear somewhat different. Dr. Steyermark has called the variation a subspecies.

SPERMACOCE CONFUSA Rendle, Journ. Bot. 74: 12. 1936.

The name Spermacoce confusa was proposed by Dr. Rendle for Spermacoce tenuior of authors, not Linnaeus. Even though Dr. Rendle wrote "S. confusa nom. nov." the name has no real basis for there is no basionym for it. It is my belief that "authors" have and until this day do include more than one species, and perhaps several species under the name S. tenuior. The specimens in Linnaeus' own herbarium of S. tenuior came in from Patrick Browne in 1758 and consequently could not have been the basis for the name. Dr. Rendle (Journ. Bot. 72: 329. 1934) states that one of the specimens on the sheet from Patrick Browne is Hemidiodia ocimifolia K. Schum. and that the other is Borreria spinosa Sw.!

Perhaps the specimen to be considered the type of Spermacoce tenuior L. is one in the Dillenian herbarium in Oxford and doubtless seen by Linnaeus. The specimen is labelled "Mr. Catsby Carolina 1722" and apparently is the only specimen that might have been available to Linnaeus that would fulfill the designation of "Habitat in Carolina" given in Species Plantarum 102, 1753.

The determination of what Spermacoce tenuior L. is and at the same time what is (or are) the plants in Mexico, Central America, the West Indies and South America that have gone by this name must be left to a monographer.

We will use the name Spermacoce confusa Rendle in the Flora of Guatemala knowing full well that it is not an acceptable namesince it has no basionym. Short of reviewing the whole problem there is little else that we can do. Time is not available for such a review.